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PATENT SPECIFICATION

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DRAWINGS ATTACHED



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(54) COIN OR TOKEN OPERATED AUTOMATIC AMUSEMENT MACHINE

(71) We, PHONOGRAPHIC TECHNICAL LIMITED, a British Company, of Phonographic House, Claremont Road, London, N.W.2, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates generally to coin or token operated automatic amusement machines, and more particularly to an amusement machine which incorporates two different types of amusement machine unit which are so interconnected that one of the units is locked out while the other is being used by a user, who will hereinafter be referred to as the "player".

A large variety of coin or token operated automatic amusement machines is known and such machines are generally installed in amusement arcades, hostleries, clubs and at other locations particularly public houses. Such machines are often so arranged that if the player achieves certain prescribed objectives he wins a prize, which may be in the form of one or more coins or tokens representing certain money values.

The principal object of the invention is to provide an automatic machine containing two different types of machine unit in which the player initially uses a type of amusement machine unit in which the decision as to whether he wins or loses at each game is largely a matter of chance, there being little or no scope for the exercise of skill. This initial machine may be arranged to provide prizes in the form of cash, tokens or credits. Alternatively, if the player should achieve a prescribed objective the first unit is automatically locked out and the second unit is brought into operation, any credits standing to the benefit of the player in respect of his use of the initial machine unit being available to use the second unit without further payment of money or tokens if the player so desires, each credit enabling him to play one game in the second machine unit. The

second machine unit is also of a kind in which prizes may be won, but the winning of prizes depends wholly or mainly on the skill of the player. The prizes won in the second unit are set up in the form of increased credits, which may be used for additional games in the second unit. However, the player may at any time obtain a prize, which may be in the form of tokens, equivalent to the total number of credits standing to his benefit, by operating a control.

The invention consists of a coin or token operated amusement machine comprising a first automatic machine unit of a kind from which the user may either win a prize or attain a first prescribed objective, the winning of a prize or the attainment of the first prescribed objective being dependent mainly on chance, a second automatic machine unit of a kind from which the user may win a prize if a second prescribed objective is met, the attainment of the second prescribed objective being dependent wholly or mainly on skill, and electrical and mechanical control apparatus interconnecting the two units, the control apparatus being so arranged that the second unit is initially locked out and the user is compelled to use the first unit, the attainment of the first prescribed objective causing the first unit to be locked out and the second unit to become operative.

The first unit may be arranged so that in will deliver prizes if certain predetermined objectives are attained and if one particular objective is attained it will cause the second machine unit to become operative, the first machine unit being locked out.

One type of coin or token operated automatic machine according to the invention will now be described with reference to the drawings accompanying the Provisional specification in which:—

Figure 1 is a pictorial view of the automatic amusement machine; and

Figure 2 is a block schematic diagram showing the control apparatus and the interconnections between the two machine units.

Referring initially to Figure 1, there is shown an amusement machine comprising a cabinet 11 in which a first machine unit 12 is contained. This may be of the kind generally known as a "fruit machine" or a variation thereof in which the player operates a handle 13 (or button or electro-mechanical control) which sets three reels or discs into rotation, the discs having symbols, which may be different kinds of fruit, marked around their peripheries. A detent mechanism is fitted to each disc so that the disc will always stop with one or other of the symbols in alignment with a given line. If three identical symbols of one particular type or any other prescribed combination is achieved then the machine unit will automatically deliver a prize. It is to be understood that the type of unit illustrated is only one example of the kind of unit which may be included as the first machine unit. Other types may be employed, the characteristic being that the winning of prizes depends wholly or mainly on chance.

The first unit is mounted below a sloping table 14 which contains a glass panel 15 and in the example being described three "hold" buttons 16 are provided so that if the player achieves one or a maximum of two desired symbols he may, by pressing the appropriate button or buttons, arrange for one or two of the reels to be held while he plays his next game. This gives him a better chance of achieving a desired combination of those symbols at his next game. If he desires to cancel the "hold" activity he may press a further button 17.

At the commencement of his play the player may insert a coin in a slot 18 in the table 14, and it may be arranged that the machine will accept a variety of coins and where necessary give change in money or tokens, which is delivered through a chute 19. Alternatively he may insert a token having a particular value into a slot 20.

If the player does not attain the prescribed objective which causes the second machine unit to become operative then he may continue to play on the first unit, any prizes he may win being delivered in the form of coins or tokens through the chute 19 or set up as credits on a credit meter 22.

If, however, he achieves the prescribed objective then electrical and/or mechanical control apparatus interconnecting the two units is activated to lock out the first machine unit, so that the handle 13 (or other device) can no longer be operated, and to bring into operation a second machine unit 21, on which the player may play any number of games up to a predetermined maximum number.

The second machine unit in the particular example being described is entitled a "Duck Shoot", which is generally illuminated when

the machine becomes operative. In operation it alternately illuminates a first pictorial symbol 23 and a second pictorial symbol 24. The illumination of the two symbols changes at a certain rate controlled by a relay. The player's object is to press a trigger button 25 at an instant when the "hit" symbol 23 is illuminated.

The game represents the shooting of ducks and the background is a general country scene including a huntsman pointing a gun at a pictorial representation 26 of a duck.

If the player presses the trigger button 25 at an instant when the symbol 23 is illuminated (and this is determined electronically) then the pictorial symbol 26 is set in rotation for a few seconds and an additional credit (or a plurality of credits) is recorded on the credit meter 22. If, on the other hand the "miss" symbol 24 is illuminated at the instant at which the player presses the trigger button 25, then the player has lost that game, the number of credits indicated on the credit meter 22 is reduced by one and a sound representative of duck noises is emitted by the machine unit.

It will be appreciated that to press the trigger button 25 at the correct instant is a matter of skill and judgement on the part of the player and requires quick reaction to the alternate illumination of the symbols 23 and 24. The rate at which the symbols alternatively flash may be so chosen that a person having keen sight and good reactions may achieve considerably more than 50% wins and in fact his total may be as high as 100% whereas if the trigger button 25 is just pressed at random then by the ordinary law of averages he should only achieve 50% wins over a long period.

The player may at any time collect his accumulated winnings in the form of tokens by pressing a further button 27.

The recovery of the credits automatically causes the credit meter 22 to be reset to zero and the machine returns to its original condition when the game of skill 21 is locked out and subsequent play can only commence by playing on the first unit by inserting coins or tokens and operating the handle 13 or its equivalent.

Figure 2 is a block schematic diagram showing the electromechanical control apparatus interconnecting the two machine units. The reel or drum mechanism of the first unit is indicated at 28. This is provided with appropriate contacts (not shown) which are all closed if the three reels stop in the positions in which the first prescribed objective is attained. Closure of these contacts energizes a "shot" unit 29. Actuation of the device 29 energizes an electromagnetic actuator or solenoid 31 which locks the operating handle 13 (Figure 1) of the first

Machine unit so that this unit cannot be operated.

Actuation of the device 29 energizes a small motor combined with a pulse cam in a unit 32. The device 32 alternately energizes and de-energizes a "hit or miss" relay 33 and the contacts on the relay 33 alternately illuminate two lamps 34 and 35. The lamp 34 is behind the glass disc 23 of Figure 1 and indicates a hit while the lamp 35 is behind the glass disc 24 in Figure 1 and indicates a miss. The two lamps, the relay 33 and the pulse cam unit 32 are so arranged that each of the lamps 34 and 35 is alight for the same length of time, and each lamp is alight for the whole of the period during which the other lamp is extinguished, apart from the minute amount of time required for the relay contacts to change over. The relay contacts may be so adjusted that this latter period is reduced virtually to vanishing point. The speed of the pulse cam unit 32 is such that the player must exercise a considerable amount of skill in order to record his "shot" at an instant when the hit light 34 is illuminated. He does this by pressing the trigger button indicated at 36. This button is pressed while the hit lamp is alight contacts on the hit or miss relay 33 cause a shot relay 37 to be energized. This starts a small motor or pulsing unit which actuates a credit cam device 38. The last mentioned device sets up one or more additional credits in the meter 30 (and reduces the total number of credits by one as payment for the game) and at the same time pulses an electromagnet 39 which is mounted at the back of the panel of the "Duck Shoot" or second machine unit 21 shown in Figure 1. The second unit is indicated by the box 21 in Figure 2. The pulsing of the electromagnet 39 causes a disc 40 to receive a rotational impulse through a ratchet and pawl mechanism 41. The disc 40 is mounted on the same spindle as the representation 26 of the duck in Figure 1 and this representation therefore spins around. At the same time a linkage 42 causes a movement of the representation of a huntsman shown on the panel of the second unit in Figure 1.

The shot relay may be arranged to maintain the illumination of whichever of the lamps 34 or 35 represents the result of the game. When the extra credit or credits have been set up in the meter the unit turns to its former state with the two lamps 34 and 35 flashing alternately, awaiting the next attempt of the player to score a hit.

If the player should score a miss, that is, press the trigger button while the miss lamp 35 is illuminated, a cut out relay 43 is energized. This actuates the credit meter 30 so as to reduce the number of credits set up in the meter 30 by one or other predetermined

number). The relay 43 may also be arranged to extinguish both the lamps 34 and 35 momentarily. If the reduction of the credits in the meter 30 should reduce the number remaining to zero then the player must insert further coins or tokens in order to continue playing in the second machine unit until he has used up the remaining number of shots allowed. In the embodiment being described ten shots are allowed when the second machine unit becomes operative. After the ten shots have been used a contact in the unit 29 de-energizes the whole of the elements 29 to 39 so that the first unit containing the reel mechanism 28 again becomes operative while the second machine unit is locked out, i.e., becomes inoperative.

WHAT WE CLAIM IS:—

1. A coin or token operated amusement machine comprising a first automatic machine unit of a kind from which the user may either win a prize or attain a first prescribed objective, the winning of a prize or the attainment of the first prescribed objective being dependent mainly on chance, a second automatic machine unit of a kind from which the user may win a prize if a second prescribed objective is met, the attainment of the second prescribed objective being dependent wholly or mainly on skill, and electrical and mechanical control apparatus interconnecting the two units, the control apparatus being so arranged that the second unit is initially locked out and the user is compelled to use the first unit, the attainment of the first prescribed objective causing the first unit to be locked out and the second unit to become operative.

2. A machine as claimed in claim 1 in which the first machine unit comprises means whereby it will deliver prizes if certain predetermined objectives are attained, and if one particular objective is attained it will cause the second machine unit to become operative, the first machine unit being locked out.

3. A machine as claimed in claim 1 or 2 in which the first machine unit is of the type generally known as a "fruit machine" or a variation thereof.

4. A machine as claimed in any preceding claim in which the second machine unit comprises two symbols which are alternately illuminated in rapid succession, a push button by which the player may modify a circuit, and means by which the modification of the circuit while a predetermined one of the symbols is illuminated provides a prize.

5. A machine as claimed in any preceding claim in which the prizes are in the form of credits, the machine comprising a control by which the player may at any time recover coins or tokens corresponding to the accumulated total of credits.

6. A coin or token operated amusement

machine unit so that this unit cannot be operated.

Actuation of the device 29 energizes a small motor combined with a pulse cam in a unit 32. The device 32 alternately energizes and de-energizes a "hit or miss" relay 33 and the contacts on the relay 33 alternately illuminate two lamps 34 and 35. The lamp 34 is behind the glass disc 23 of Figure 1 and indicates a hit while the lamp 35 is behind the glass disc 24 in Figure 1 and indicates a miss. The two lamps, the relay 33 and the pulse cam unit 32 are so arranged that each of the lamps 34 and 35 is alight for the same length of time, and each lamp is alight for the whole of the period during which the other lamp is extinguished, apart from the minute amount of time required for the relay contacts to change over. The relay contacts may be so adjusted that this latter period is reduced virtually to vanishing point. The speed of the pulse cam unit 32 is such that the player must exercise a considerable amount of skill in order to record his "shot" at an instant when the hit light 34 is illuminated. He does this by pressing the trigger button indicated at 36. If this button is pressed while the hit lamp 34 is alight contacts on the hit or miss relay 33 cause a shot relay 37 to be energized. This starts a small motor or pulsing unit which actuates a credit cam device 38. The last mentioned device sets up one or more additional credits in the meter 30 (and reduces the total number of credits by one as payment for the game) and at the same time pulses an electric magnet 39 which is mounted at the back of the panel of the "Duck Shoot" or second machine unit 21 shown in Figure 1. The second unit is indicated by the box 21 in Figure 2. The pulsing of the electromagnet 39 causes a disc 40 to receive a rotational impulse through a ratchet and pawl mechanism 41. The disc 40 is mounted on the same spindle as the representation 26 of the duck in Figure 1 and this representation therefore spins around. At the same time a linkage 42 causes a movement of the representation of a huntsman shown on the panel of the second unit in Figure 1.

The shot relay may be arranged to maintain the illumination of whichever of the lamps 34 or 35 represents the result of the game. When the extra credit or credits has/have been set up in the meter the unit turns to its former state with the two lamps 34 and 35 flashing alternately, awaiting the next attempt of the player to score a hit.

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WHAT WE CLAIM IS:—

1. A coin or token operated amusement machine comprising a first automatic machine unit of a kind from which the user may either win a prize or attain a first prescribed objective, the winning of a prize or the attainment of the first prescribed objective being dependent mainly on chance, a second automatic machine unit of a kind from which the user may win a prize if a second prescribed objective is met, the attainment of the second prescribed objective being dependent wholly or mainly on skill, and electrical and mechanical control apparatus interconnecting the two units, the control apparatus being so arranged that the second unit is initially locked out and the user is compelled to use the first unit, the attainment of the first prescribed objective causing the first unit to be locked out and the second unit to become operative.

2. A machine as claimed in claim 1 in which the first machine unit comprises means whereby it will deliver prizes if certain predetermined objectives are attained, and if one particular objective is attained it will cause the second machine unit to become operative, the first machine unit being locked out.

3. A machine as claimed in claim 1 or 2 in which the first machine unit is of the type generally known as a "fruit machine" or a variation thereof.

4. A machine as claimed in any preceding claim in which the second machine unit comprises two symbols which are alternately illuminated in rapid succession, a push button by which the player may modify a circuit, and means by which the modification of the circuit while a predetermined one of the symbols is illuminated provides a prize.

5. A machine as claimed in any preceding claim in which the prizes are in the form of credits, the machine comprising a control by which the player may at any time recover coins or tokens corresponding to the accumulated total of credits.

6. A coin or token operated amusement

machine arranged and adapted to operate substantially as herein described, with reference to and as illustrated in the drawings accompanying the Provisional specification.

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